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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/880,672

06/13/2001

Hyun-Dong Lee

678-0659

5097

66547

7590

03/24/2008

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EXAMINER

ADDY, THUAN KNOWLIN

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

03/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/880,672	<b>Applicant(s)</b> LEE, HYUN-DONG	
	<b>Examiner</b> THJUAN K. ADDY	<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on December 26, 2007 has been entered. No claims have been amended. Claims 2 and 4-8 have been cancelled. No claims have been added. Claims 1 and 3 are still pending in this application, with claim 1 being independent.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bank et al. (US Patent Application, Pub. No.: US 2001/0033669 A1), in view of Toki (UK Patent Application, GB 2343811).

3. In regards to claim 1, Bank discloses a panel-type speaker (e.g., transducer, actuator, exciter) (See Fig. 1, panel-form loudspeaker 10, resonant panel 12, and transducer 14) mounting structure (See Fig. 1 and mount 16) comprising: a second portion (See Fig. 9 and second piezoelectric beam 51) extended from the first portion (See Fig. 9 and first piezoelectric beam 43), for mounting a panel-type speaker to the lower surface of the second portion of the polarizing plate (See pg. 7, paragraph [0105];

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pg. 7, paragraph [0111] - [0113]; pg. 8, paragraph [0125] - [0126]; and pg. 9, paragraph [0133] - [0134]). Bank discloses all of claim 1 limitations, except an LCD window or LCD module arranged within the resonant element transducer. Toki, however, does disclose an LCD window or LCD module arranged within a transparent piezoelectric speaker. Toki discloses a liquid crystal display (LCD) window having a first surface exposed on a top end and of an upper casing frame of a main body and a second surface facing an interior or the main body; and an LCD module disposed under the LCD window with a gap between the LCD module and the LCD window within the main body, the LCD module having a polarizing plate having an upper surface facing the second surface of the LCD window and a lower surface opposite the upper surface, the polarizing plate being divided into a first portion located adjacent to the LCD window and, wherein the second portion of the plate is extended in a predetermined direction below the LCD window away from a top portion of a device (See Fig. 2, pg. 2 lines 3-6, pg. 2-3 lines 22-2, and pg. 5 lines 1-10). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate these features within the speaker/transducer, as a way of providing a piezoelectric speaker to be used for a portable device, such as a mobile communication terminal, and providing a piezoelectric speaker that can lend a large installation area to a display device, such as LCD and CRT display.

4. In regards to claim 3, Bank discloses the panel-type speaker mounting structure, wherein the polarizing plate is made from a polarizing material (See pg. 7, paragraph [0111]).

***Response to Arguments***

5. Applicant's arguments with respect to claims 1 and 3 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bank et al. (US 7,149,318) teach a resonant element transducer.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THJUAN K. ADDY whose telephone number is (571)272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thjuan K. Addy/  
Primary Examiner, Art Unit 2614